This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

Claims 1-20 (cancelled)

21. (currently amended) A method for ~~preventing or~~ treating migraine headaches, cortical spreading depression, ~~and other headache conditions~~ and symptoms of such conditions in a mammalian subject in need thereof comprising administering an effective amount of a ~~treatment composition having ion dependent~~ Na^+ K^+2Cl^- cotransporter antagonist ~~activity~~ to the central nervous system of the subject.

22. (cancelled)

23. (currently amended) The method of claim 21, wherein the ~~treatment composition comprises~~ Na^+ K^+2Cl^- cotransporter antagonist is a loop diuretic.

24. (previously presented) The method of claim 21, wherein the subject is a human.

25. (previously presented) The method of claim 21, additionally comprising administering an effective amount of a blood brain barrier permeability enhancer.

26. (previously presented) The method of claim 21, additionally comprising administering a hyperosmotic agent.

27. (currently amended) The method of claim ~~21~~ 23, wherein the ~~treatment composition comprises an agent~~ loop diuretic is selected from the group consisting of ~~loop diuretics,~~ furosemide and furosemide-related compositions~~, and thiazides and thiazide-like compositions~~.

28. (currently amended) The method of claim ~~21~~ 27, additionally comprising administering ~~an agent~~ one or more agents selected from the group consisting of ~~anti-migraine agents, beta blockers, calcium channel blockers, non-steroidal anti-inflammatory drugs, neuroleptics, corticosteroids, vasoconstrictors, antidepressants,~~ anticonvulsants~~, serotonin receptor agonists, ergot alkaloids and benzodiazepines~~ and non-steroidal anti-inflammatory drugs.

29. (currently amended) The method of claim ~~21~~–28, ~~additionally comprising an agent selected from the group consisting of: tryptans, acetaminophen, caffeine, ibuprofen, propoxyphene, oxycodone, codeine, isometheptene, ergotamine, dihydroergotamine, sumagriptan, propanolol, metoprolol, atenolol, timolol, nadolol, nifedipine, nimodipine, verapamil, aspirin, ketoprofen, tofenamic acid, naproxen, methysergide, paracetamol, clonidine, lisuride, iprazochrome, butalbital, benzodiazepines, serotonin receptor agonists and~~ wherein one of said anticonvulsant agents is divalproex sodium.

30. (currently amended) The method of claim ~~22~~ 21, wherein the ~~treatment composition has glial cell~~ Na^+ K^+2Cl^- cotransporter antagonist inhibits Na^+ K^+2Cl^- cotransport in glial cells.

31. (currently amended) The method of claim ~~22~~ 21, wherein the ~~treatment composition~~ $Na^+K^+2Cl^-$ cotransporter antagonist exhibits a high degree of activity in glial cell populations and a lesser degree of activity in neuronal and renal cell populations.

32. (cancelled)

33. (previously presented) The method of claim 25, wherein the blood brain barrier permeability enhancer is selected from the group consisting of leukotrienes, bradykinin agonists, histamine, tight junction disruptors, hyperosmotic solutions, cytoskeletal contracting agents and short chain alkylglycerols.

34. (cancelled)

35. (currently amended) A method for treating ~~migraine headache,~~ cortical spreading depression ~~and other headache conditions in a mammalian subject~~ and migraine symptoms in a human in need of such treatment, comprising selecting a $Na^+K^+2Cl^-$ cotransporter antagonist that is effective in inhibiting synchronized neuronal population discharges in the CNS of a mammal without decreasing excitatory synaptic transmission, and administering ~~an effective amount of a treatment composition that modulates the synchronization of neuronal discharges in the central nervous system~~ said antagonist to the central nervous system of said human in an amount that is effective in ameliorating or aborting said symptoms.

36. (currently amended) The method of claim 35, wherein the antagonist ~~treatment composition produces diminished hypersynchyronization~~ blocks spontaneous

synchronized depolarizing oscillations of neuronal population activity in the central nervous system.

37. (currently amended) The method of claim 35, wherein ~~the treatment composition~~ said $Na^+K^+Cl^-$ cotransporter antagonist produces modulation of the chloride concentration in extracellular space in the central nervous system.

38. (currently amended) A method for treating a patient who suffers from migraine headaches, cortical spreading depression and ~~other headache conditions in a mammalian subject in need thereof~~ premonitory symptoms of migraine headache, comprising administering an effective therapeutic amount of a ~~treatment composition having ion-dependent cotransporter antagonist activity, wherein the treatment composition comprises an agent~~ loop diuretic selected from the group consisting of ~~loop diuretics,~~ furosemide and furosemide-related compositions ~~and thiazides and thiazide-like compositions~~ to said patient, wherein said symptoms are ameliorated by said treatment.

39. (previously presented) The method of claim 38, additionally comprising administering an effective amount of a blood brain barrier permeability enhancer.

40. (previously presented) The method of claim 38, wherein the treatment composition is formulated to facilitate crossing of the blood brain barrier.

41. (New) The method of claim 27, wherein the loop diuretic is administered intranasally.

42. (New) The method of claim 38, wherein the loop diuretic is administered intranasally.

43. (New) The method of claim 27, wherein the loop diuretic is administered directly into the cerebrospinal fluid.

44. (New) The method of claim 38, wherein the loop diuretic is administered directly into the cerebrospinal fluid.

45. (New) A method for treating migraine headaches in a mammalian subject in need thereof, comprising administering a cation chloride cotransporter antagonist to the central nervous system of the subject.